

FIVE NEW SPECIES OF ALEYRODIDAE FROM
CALIFORNIA
(Homoptera)

BY W. W. SAMPSON
University of California, Berkeley

Among the Aleyrodidae collected by the writer in California are five species whose characters do not resemble those of other described forms. These apparently new species are described herein. Holotypes and certain paratypes will be deposited in the California Academy of Sciences.

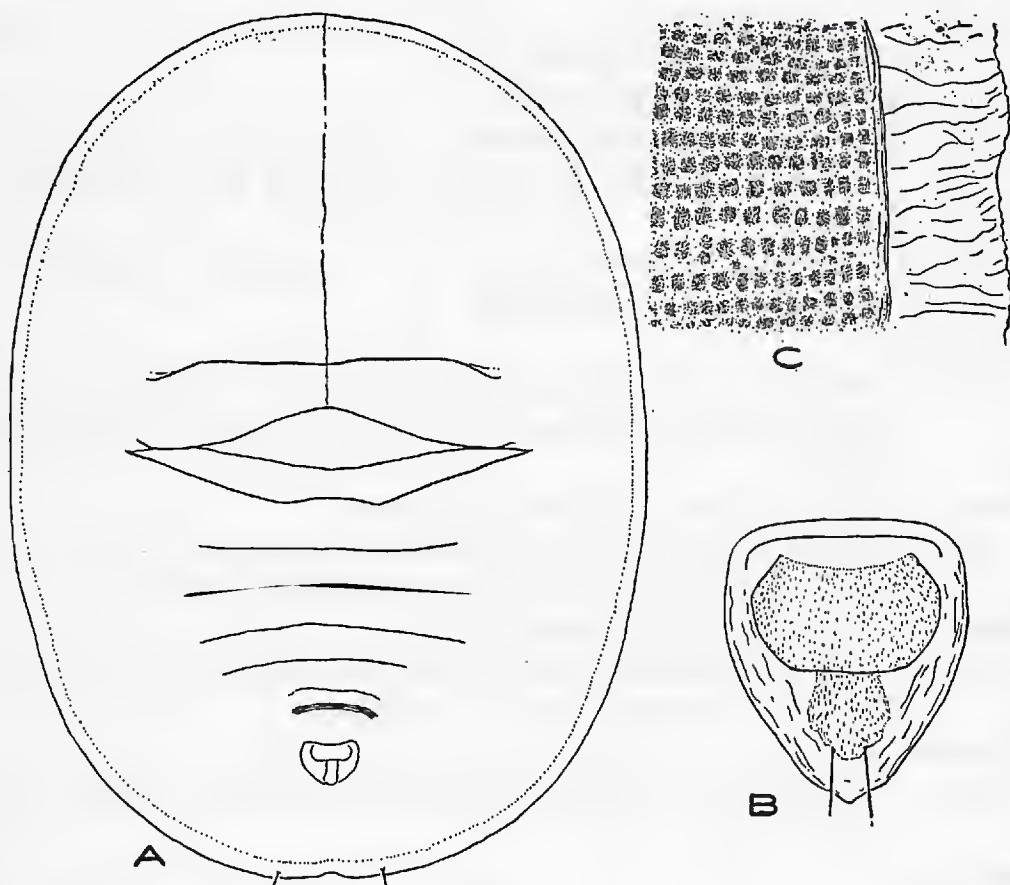


Fig. 1. *Aleyrodes osmaroniae* Sampson. A, pupal case. B, vasi-form orifice. C, margin of case.

Genus ALEYRODES Latreille, 1810

Aleyrodes osmaroniae Sampson, new species
(Fig. 1)

Pupal case. Size 1.28 mm. long by 0.97 mm. wide; shape broadly elliptical; margin slightly irregular, chitinated for a width of 0.35 mm.; behind the chitinated margin there occurs for some distance groups of dotted areas; vasi-form orifice subcordate and striated, the posterior margin pointed, operculum roundly trape-

zoidal, setose, lingular three-quarters the length of orifice, the two setae projecting beyond the margin of the orifice; caudal margin of body slightly indented and bearing two setae.

Color of case bright lemon yellow; without wax secretion.

Adults. Not known.

Collected by the writer from *Osmaronia cerasiformia* in Strawberry Creek Canyon, on the Campus of the University of California, BERKELEY, CALIFORNIA, June 14, 1941, along with *A. spiraeoides* (Q.) from the underside of the leaf.

This species differs essentially from *Aleyrodes spiraeoides* (Quaintance) by having the chitinized margin.

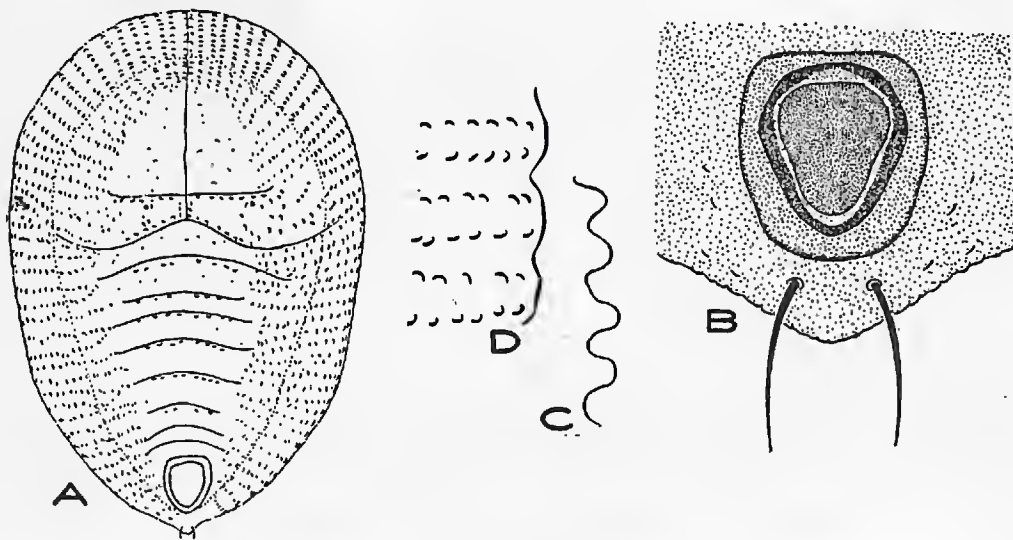


Fig. 2. *Tetralicia ceanothi* Sampson. A, pupal case. B, vasi-form orifice. C, margin of case. D, apparent margin of case.

Genus TETRALICIA Harrison, 1917

Tetralicia ceanothi Sampson, new species (Fig. 2)

Pupal case. Size 0.623 mm. long by 0.540 mm. wide; shape broadly ovate, narrowing posteriorly; margin toothed, eight teeth in 0.0783 mm. wax tubes well developed; deflexed portion of case about one-fourth the width of case, 0.0703 mm. wide; apparent margin bears bidentate projections, which are the two rows of imbrications running over the edge to the deflexed portion; there are about 88 of these double rows of imbrications, which extend from the edges of the faintly indicated body segments to the margin; a few single imbrications are scattered over the dorsum; thoracic transverse slit not reaching apparent edge of body; vasi-form orifice subcordate, set in a roundly rectangular, chitinized area; operculum subcordate, nearly filling orifices; lingula hidden;

posterior prolongation slightly developed, bearing two long setae.

Case black, resting on a small amorphous mass of wax.

Adults. Not known.

Collected by Nathan Stahler and Thomas Kelly from *Ceanothus cuniatus* near BISHOP, CALIFORNIA, March 29, 1940.

This species is related to *Tetralicia nigrans* (Bemis), but differs essentially from it by having the wide chitinized area around the vasiform orifice and by having imbrications on the dorsum.

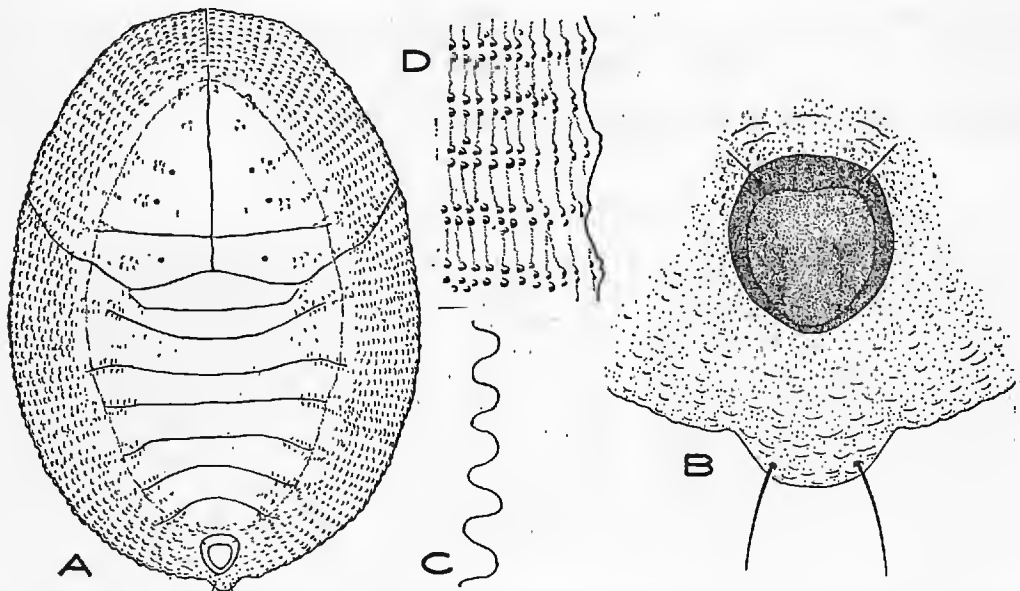


Fig. 3. *Tetralicia sierrae* Sampson. A, pupal case. B, vasi-form orifice. C, margin of case. D, apparent margin of case.

Tetralicia sierrae Sampson, new species

(Fig. 3)

Pupal case. Size 0.820 mm. long by 0.450 mm. wide; shape elliptical; margin toothed, four teeth in 0.117 mm.; deflexed portion of case about one-third the width of case, 0.0783 mm. wide; apparent margin bearing bidentate projections with a smaller one in between each, the projections being the appearance of double rows of granules on the edge of the deflexed portion; the granules are lacking in the medium line of the dorsum; thoracic transverse slit reaching edge of apparent margin; vasi-form orifice cordate, raised, slightly longer than wide; operculum cordate, filling orifice; lingula hidden; posterior prolongation well developed, bearing two long setae.

Case black, with a thin fringe of wax.

Adults. Not known.

Collected by the writer from an undetermined, low spreading shrub at TRUCKEE, CALIFORNIA, June 25, 1940.

This species is related to *T. ceanothi*, but differs essentially from it by having the case granulate and by not having the wide chitinized area around the vasi-form orifice.

Genus *TRIALEURODES* Cockerell, 1902
Trialeurodes californiensis Sampson, new species
(Fig. 4)

Pupal case. Size 1.07 mm. long by 0.74 mm. wide; shape broadly elliptical; margin entire, slightly irregular, with a few faint folds behind it; a single row of long pointed papillae lie behind the margin, nine in 0.16 mm.; behind the papillae are one or two rows of tiny clear pores, some of which are doubled, the same type of pores occur along each side of the abdominal ridge, one to each segment, and another row further out, as well as a few on the

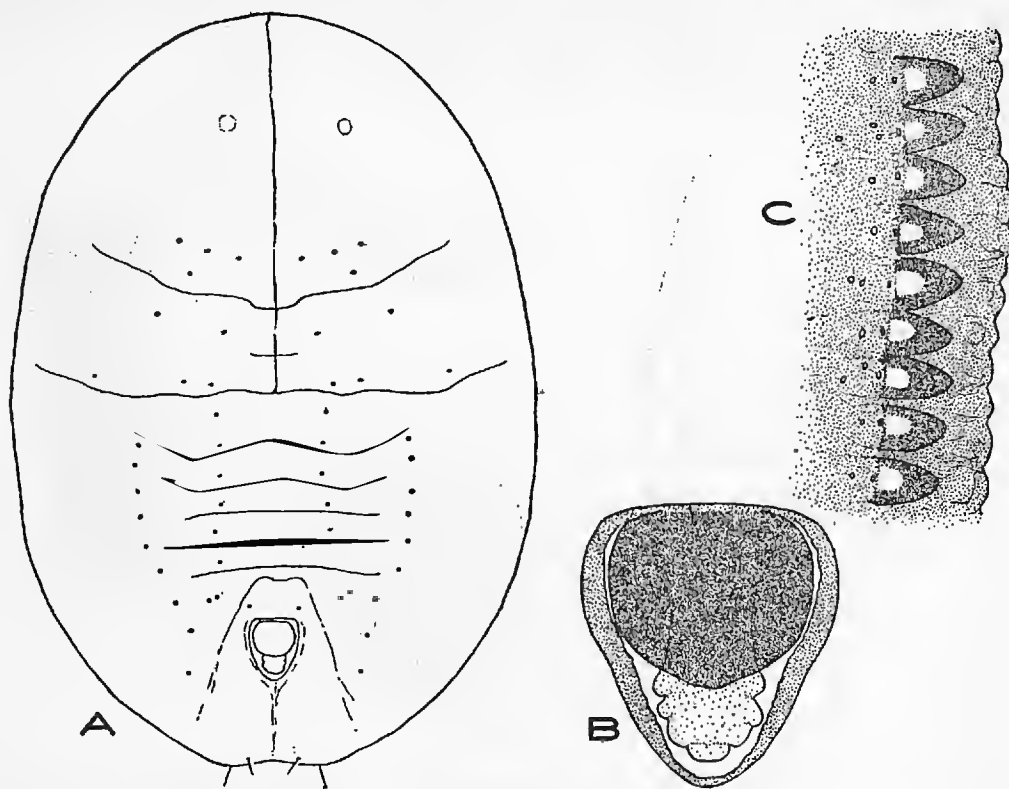


Fig. 4. *Trialeurodes californiensis* Sampson. A, pupal case. B, vasiform orifice. C, margin of case.

thorax; vasiform orifice subcordate; operculum rounded, filling about half of the orifice; lingula trilobed on each side, without setae nearly reaching to posterior margin of orifice; caudal furrow indicated; two pairs of hairs are located on the posterior margin.

Case black, with a fringe of wax up to one-half the width of case, dorsum without wax; case slightly elevated above wax fringe. Appears very much like immature forms of *Tetraleurodes stanfordi* (Bemis).

Adults. Not known.

Collected by Dr. M. A. Cazier at GUERNEVILLE, CALIFORNIA, March 15, 1939, and at ANTIOCH, CALIFORNIA, by E. A. Drews and by W. W. Sampson, April 8, 1940, from *Quercus* sp.

This species differs essentially from *Trialeurodes wellmanae*

(Bemis) by being black and lacking the large semi-transparent areas on the cephalo-thorax.

***Trialeurodes drewsi* Sampson, new species**

(Fig. 5)

Pupal case. Size 0.78 mm. long by 0.48 mm. wide; shape narrowly elliptical; margin regularly crenulate, five crenulations in 0.157 mm.; an irregular row of small papillae occurs behind the margin, along with a few larger in size but fewer in number; dorsum bearing about nine pairs of stomata-like pores on the central portion, and two pairs of small papillae toward the lateral ends of the transverse thoracic slit and a larger pair on the cephalo-thorax; vasiform orifice subcordate, ribbed; operculum

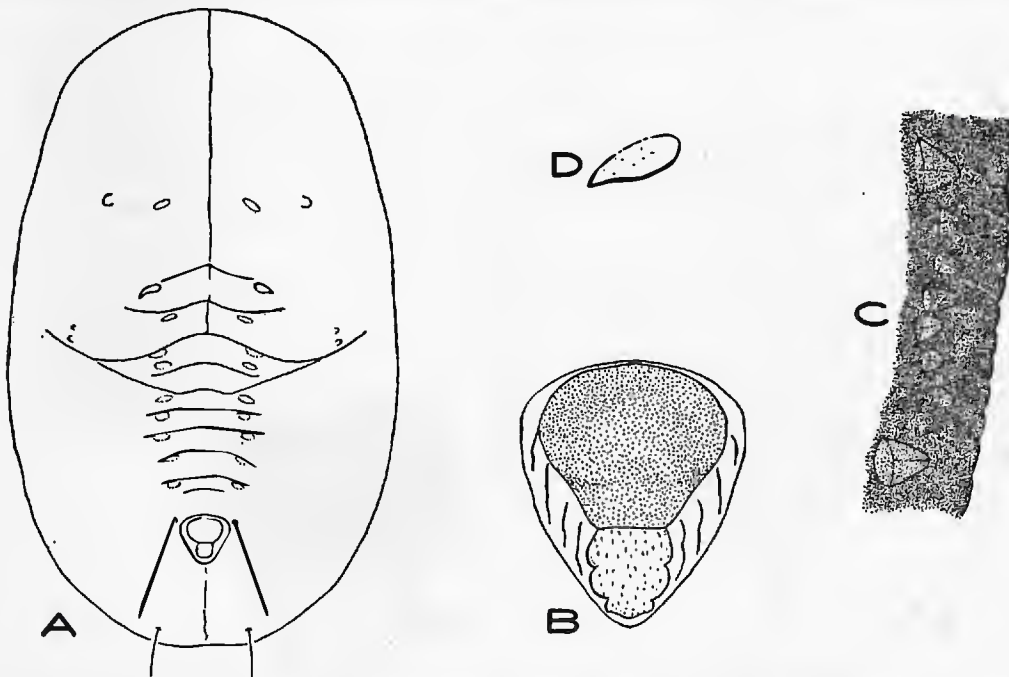


Fig. 5. *Trialeurodes drewsi* Sampson. A, pupal case. B, vasi-form orifice. C, margin of case. D, stomata-like pore.

elongately trapezoidal, narrowing posteriorly, filling slightly more than half of the orifice; lingula nearly reaching the edge of orifice, trilobed on each side, and without setae; two setae much longer than the vasiform orifice occur near the orifice, and two near the caudal margin of the case.

Case black, greatly elevated on a palisade of white wax; dorsum covered with a layer of clear wax bearing numerous spines of clear wax.

Adults. Not known.

Collected by the writer from *Quercus* sp. at MT. TAMALPAIS, MARIN COUNTY, CALIFORNIA, March 16, 1941.

This species is related to *Trialeurodes tentaculatus* (Bemis), from which it differs by being black in color and having the stomata-like pores.